

Claims

1. A method of cleaning crankcase gas generated during operation of an internal combustion engine (31; 41) in its crankcase,

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characterized by

10 - use of a centrifugal separator (34; 50) that includes a centrifugal rotor (8) arranged for rotation by means of a driving motor (9; 49) and arranged by its rotation to suck crankcase gas from the crankcase to the centrifugal separator (34; 50),

15 - sensing of a parameter, the magnitude of which is related to the amount of crankcase gas generated per unit of time in the crankcase, and

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- changing of the rotational speed of the centrifugal rotor (8) in response to a sensed change of said parameter in a way such that the gas pressure in the crankcase is maintained at a predetermined value, or within a predetermined pressure interval, during the operation of the combustion engine (31; 41).

20 25 2. A method according to claim 1, in which the rotational speed of the centrifugal rotor (8) is changed from a first value to a second value, both larger than nil.

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3. A method according to claim 1, in which the rotational speed of the centrifugal rotor (8) is changed stepwise in more than two steps.

30 4. A method according to claim 1, in which the rotational speed of the centrifugal rotor (8) is changed continuously.

5. A method according to any one of the preceding claims, in which the rotational speed of the centrifugal rotor (8) is changed in response to a sensed change of a flow of crankcase gas, that is generated as a consequence of the production of crankcase gas by the combustion engine 5 (31; 41).
6. A method according to any one of the claims 1-4, in which the rotational speed of the centrifugal rotor (8) is changed in response to a sensed change of an over pressure of the crankcase gas, which comes up as 10 a consequence of the production of crankcase gas by the combustion engine (31; 41).
7. A method according to any one of the preceding claims, in which sensing is made of a parameter varying with the load on the combustion engine 15 (31; 41).
8. A method according to any one of the preceding claims, in which an electric driving motor (49) is used for the rotation of the centrifugal rotor (8) and a frequency converter (48) is used for changing of the rotational 20 speed of the driving motor (49) and, thereby, the speed of the centrifugal rotor (8).
9. A device for cleaning of crankcase gas generated during operation of an internal combustion engine (31; 41) in its crankcase, said device including 25 a centrifugal separator (34, 50) having a centrifugal rotor (8) that is arranged for rotation by means of a driving motor (9; 49) and arranged by its rotation to suck crankcase gas from the crankcase to the centrifugal separator,

30 characterized in

- that the driving motor (9; 49) is arranged for rotation of the centrifugal rotor (8) at different speeds,
- that sensing means (45) is arranged to sense a parameter, the magnitude of which is related to the amount of crankcase gas generated per 5 unit of time in the crankcase,
- that said sensing means (45) is operatively connected with the driving motor (8, 49) and
- that the driving motor (9; 49) is arranged to change the rotational speed of the centrifugal rotor (8) in response to a sensed change of said parameter in a way such that the gas pressure in the crankcase is maintained at a predetermined value, or within a predetermined pressure interval, 10 during the operation of the combustion engine (31; 41).

10. A device according to claim 9, in which the driving motor (49) is 15 electric and a frequency converter (48) is connected between the sensing means (45) and the driving motor (49).

11. A device according to claim 9 or 10, in which the sensing means (45) is arranged to sense a parameter that is related to the load to which the 20 combustion engine (41) is subjected during its operation.